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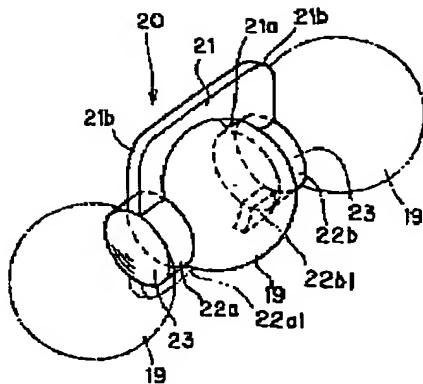
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APPLICANT : THK CO LTD;

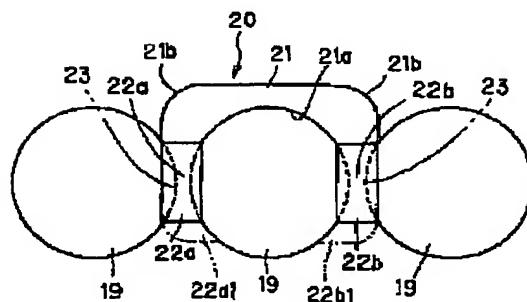
INVENTOR : SHIRAI TAKEKI;

INT.CL. : B62D 5/04 B62D 5/22 F16H 25/22

TITLE : BALL SCREW FOR STEERING AND POWER STEERING DEVICE USING THE SAME



(a)



(b)

ABSTRACT : PROBLEM TO BE SOLVED: To provide a ball screw for steering capable of improving steering feeling.

SOLUTION: This ball screw for steering comprises a screw shaft in which a rack tooth is formed on one end side and a spiral ball rolling groove is formed on the other end side and which is made of a hollow material, a nut assembled on the screw shaft through a plurality of balls 19, so as to rotate relatively and freely, and a plurality of ball holding spacers 20, holding a plurality of balls 19, so as to rotate and slide freely. Since the ball holding spacers 20, hold a plurality of balls 19, so as to rotate and slide freely, adjacent balls 19, do not touch mutually during rolling movement in a load rolling passage to reduce mutual friction of the balls 19, and improve steering feeling. Moreover, since the screw shaft is formed by the hollow material, it is possible to reduce steering torque moving the screw shaft linearly in the direction of axial line.

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